

Serial No.: 10/008,657

Filing Date: 11/9/2001

Attorney Docket No. 100.339US01

Title: HARDWARE CONTROLLER AND MONITOR

Amendments to the Claims:

Claims 1, 10 and 16 are currently amended. New claims 47 to 54 have been added. No new material has been added by this amendment.

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of claims:

1.(Currently Amended) A transmission system, comprising:

 a hardware monitor adapted to collect performance information about associated hardware components;

 a system information database adapted to refresh based on the collected performance information and to generate system status information; and

 a hardware controller adapted to selectively communicate ~~alarm~~-change messages to one or more of the hardware components based on the collected performance information and the system status information.

2.(Original) The system of claim 1, wherein the performance information includes alarm indications and error counts.

3.(Original) The system of claim 1, wherein the hardware controller comprises:

 a change response generator; and

 one or more system hardware port controllers adapted to coupled to the change response generator.

4.(Original) The system of claim 1, further comprising a notification device adapted to transmit collected performance information and system status information to one or more associated remote units.

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5.(Original) The system of claim 4, wherein the notification device is an embedded operations channel.

6.(Original) The system of claim 1, wherein the one or more hardware components comprise one or more hardware drivers.

7.(Original) The system of claim 6, wherein the one or more hardware drivers comprise one or more of transport hardware drivers, a light emitting diode driver, and a power feed driver.

8.(Original) The system of claim 6, wherein the one or more hardware drivers comprise one or more of a digital subscriber line driver, an E1 driver, a dataport driver, a light emitting diode driver, and a power feed driver.

9.(Original) The system of claim 1, further comprising an application interface that interfaces between the hardware controller and the one or more hardware components.

10.(Currently Amended) A local transmission system, comprising:

- a detection device adapted to identify alarm information within the local transmission system and to identify received alarm information from one or more associated remote units;

- a system information database adapted to store system status information and to refresh based on alarm information identified by the detection device; and

- a hardware controller adapted to selectively communicate ~~alarm~~-change messages to one or more hardware components based on the alarm information and the system status information.

11.(Original) The system of claim 10, wherein the hardware controller comprises:

- a change response generator; and

- one or more port controllers coupled to the change response generator.

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12.(Original) The system of claim 10, wherein the alarm information includes alarm indications and error counts.

13.(Original) The system of claim 10, wherein the detection device is an embedded operations channel.

14.(Original) The system of claim 10, wherein the one or more hardware components comprise one or more hardware drivers.

15.(Original) The system of claim 6, wherein the one or more hardware drivers comprise one or more of transport hardware drivers, a light emitting diode driver, and a power feed driver.

16.(Currently Amended) A transmission system, comprising:

 a system information database; and

 a hardware module adapted to collect performance information about associated hardware components and to interface between the associated hardware components and the system information database;

 wherein the system information database is adapted to refresh based on system performance information and to generate system status information; and

 wherein the hardware module selectively communicates ~~alarm~~-change messages to one or more of the hardware components based on the collected performance information and the system status information.

17.(Original) The system of claim 16, wherein the one or more hardware components comprise one or more hardware drivers.

18.(Original) The system of claim 17, wherein the one or more hardware drivers comprise one or more of transport hardware drivers, a light emitting diode driver, and a power feed driver.

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19.(Original) The system of claim 16, wherein the hardware controller comprises:

a change response generator; and

one or more port controllers coupled to the change response generator.

20.(Original) The system of claim 16, wherein the performance information includes alarm indications and error counts.

21.(Original) A transmission system, comprising:

a system information database adapted to generate system status information;

a transport hardware monitor adapted to collect performance information about associated transport hardware components;

a transport hardware controller;

wherein the transport hardware controller selectively communicates with one or more hardware drivers to effect a configuration change based on the collected performance information and the system status information;

wherein the hardware monitor is adapted to query the one or more hardware drivers and to detect alarm conditions; and

wherein the one or more hardware drivers are each adapted to communicate with the transport hardware controller via an application interface.

22.(Original) The system of claim 21, wherein the one or more hardware drivers comprise one or more of an E1 driver, a digital subscriber line driver, and a dataport driver.

23.(Original) The system of claim 21, wherein the transport hardware controller comprises:

a change response generator; and

one or more port controllers coupled to the change response generator.

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24.(Original) The system of claim 23, wherein the change response generator includes a message queue adapted to receive alarm change messages generated by the system information database.

Claims 25-46 (Canceled).

47. (New) A transmission system, the system comprising:

 a hardware monitor adapted to collect performance information about associated hardware components;

 a system information database adapted to refresh based on the collected performance information and to generate system status information; and

 a hardware controller adapted to react to changes in the system information database by selectively communicating one or more change messages to one or more of the associated hardware components.

48. (New) The system of claim 47, wherein the one or more change messages are selectively communicated based on one or both of the collected performance information and the system status information.

49. (New) The system of claim 47, wherein the one or more change messages are adapted to cause changes to the associated hardware components based upon a change in the system information database.

50. (New) The system of claim 47, wherein the one or more hardware components comprise one or more hardware drivers.

51. (New) A local transmission system, the system comprising:

 a detection device adapted to identify alarm information within the local transmission system and to identify received alarm information from one or more associated remote units;

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a system information database adapted to store system status information and to refresh based on alarm information identified by the detection device; and

a hardware controller adapted to react automatically to changes in the system information database by selectively communicating one or more change messages to one or more associated hardware components.

52. (New) The system of claim 51, wherein the one or more change messages are adapted to cause changes to the one or more associated hardware components based upon a change in the system information database.

53. (New) The system of claim 51, wherein the hardware controller comprises:

a change response generator; and

one or more port controllers coupled to the change response generator; and

wherein the change response generator is adapted to react to changes in one or both of the alarm information and stored system status information by transmitting one or more port controller commands to the one or more port controllers.

54. (New) The system of claim 53, wherein the change response generator is adapted with a table to correlate one or more possible changes in the system information database with at least one associated port controller command of the one or more port controller commands.